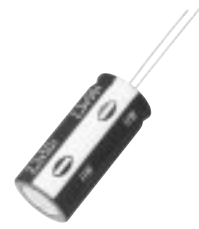


### Radial lead Type

Series: **HW**



#### ■ Features

- Can be discharged mA or more current.
- RoHS directive compliant

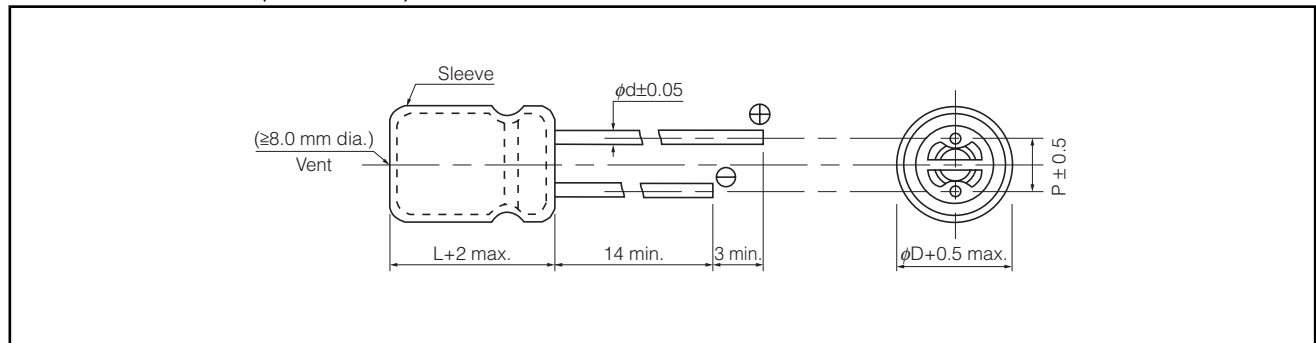
#### ■ Recommended Applications

- Solar battery operated circuits (Road guidance flasher), Quick charging motor drives (Toy car)
- Back-up Power Supplies (UPS)

#### ■ Specifications

Category	Temp. Range	-25 °C to +70 °C		-25 °C to +60 °C	
Maximum Operating Voltage		2.3 V.DC		2.3 V.DC	2.1 V.DC
Nominal Cap. Range		1 F to 22 F		30, 50 F	70 F
Capacitance Tolerance		-20 % to +40 % (1F : +80 %)			
Characteristics at Low Temperature	Capacitance change	±30 % of initial measured value at +20 °C (-25 °C to +70 °C, +60 °C)			
	Internal resistance	≤4 times of initial measured value at +20 °C (at -25 °C)			
Endurance	After 1000 hours application of 2.3 V. DC at +70 °C (+60 °C), the capacitor shall meet the following limits.				
	Capacitance change	±30 % of initial measured value			
	Internal resistance	≤2 time of initial specified value			
Shelf Life	After 1000 hours storage at +70 °C (+60 °C) without load, the capacitor shall meet the specified limits for Endurance.				

#### ■ Dimensions in mm(not to scale)



#### ■ Standard Products

Category temp. range (°C)	Max. Operating Voltage (V.DC)	Capacitance (F)	Internal resistance (Ω) at 1 kHz	Size (mm)				Part number	Min. Packaging Q'ty (pcs)
				φD	L	φd	P		
-25 to +70	2.3	1.0	≤ 1.0	8.0	22.0	0.7	3.5	EECHW0D105	200
		3.3	≤ 0.3	12.5	23.0	0.8	5.0	EECHW0D335	200
		4.7	≤ 0.3	12.5	23.0	0.8	5.0	EECHW0D475	200
		10	≤ 0.2	12.5	35.0	0.8	5.0	EECHW0D106	100
		22	≤ 0.1	18.0	35.0	0.8	7.5	EECHW0D226	50
-25 to +60	2.1	30	≤ 0.1	18.0	35.0	0.8	7.5	EECHW0D306	50
		50	≤ 0.1	18.0	40.0	0.8	7.5	EECHW0D506	50
		70	≤ 0.1	18.0	50.0	0.8	7.5	EECHW0D706	50

Note : 1. Do not use reflow soldering. (IR, Atmosphere heating methods, etc. )  
Please refer to P197 "Mounting Specifications".